

RECEIVED**CENTRAL FAX CENTER****MAY 19 2008**Remarks

Reconsideration of this patent application is respectfully requested, particularly as herein amended.

The Office Action of November 28, 2007, first rejects claim 43 under 35 U.S.C. §112, first and second paragraphs.

Noting that the Office Action has been made final, claim 43 has been canceled to remove these issues from further consideration. However, this is not to be construed as applicants' acquiescence in the formulated rejections of claim 43 under 35 U.S.C. §112, first and second paragraphs, or a disclaimer of any subject matter presented in this patent application.

The Office Action also rejects claims 45 to 60 under 35 U.S.C. §112, second paragraph, because the term "belt" which is recited in these claims is considered to be "misdescriptive and changing the normal meaning of the term". It is further noted that while the substitute specification which was submitted with applicants' Reply filed on October 10, 2007, has been entered, there is a parallel objection to the substitute specification for using the term "belt". The undersigned thanks the Examiner for entering the substitute specification which was submitted with the Reply filed in this matter on October 10, 2007. However, and for reasons which follow, the rejection of claims 45 to 60 under 35 U.S.C. §112, second paragraph, and the parallel objection to applicants' substitute specification are respectfully traversed.

Firstly, it is submitted that the term "belt" is

appropriately descriptive of the subject matter claimed. Both the Merriam-Webster® and the American Heritage® Dictionaries indicate that the term "belt" can mean "to encircle or fasten", "to strap on" and to "gird". Copies of these definitions are enclosed with this Reply. Because the belt 25 which is described in the specification is used to encircle, or otherwise fasten the instrument (5) in the head (4) of the handpiece (1), it is submitted that this use is neither misdescriptive, nor a change in the normal meaning of the term and, consequently, that the term "belt" is appropriately used.

Secondly, and noting Sections 706.03(d) and 2111.01 of the Manual of Patent Examining Procedure, it is submitted that even if the term "belt" is not considered to be used in its customary fashion, applicants are entitled to be their own lexicographer and are, therefore, entitled to use the term in this manner. It is recognized that, for this, the specification must clearly indicate how the employed term is being used (noting Section 2173.05(a), as well as Sections 706.03(d) and 2111.01 of the Manual of Patent Examining Procedure). However, the present specification clearly describes the structures that applicants are defining as a "belt", with reference to line 3 of page 9 to line 28 of page 13 of the original specification, and pages 10 to 15 of the substitute specification which was submitted with the Reply filed in this matter on October 10, 2007. The structure of the "belt" is additionally illustrated in Figures 4 to 10 of the drawings.

Accordingly, it is submitted that the term "belt" is either appropriately descriptive of the structures involved or is appropriately used to describe the structures involved in view of the disclosure which has been provided in the specification, and reconsideration and withdrawal of the stated rejection of claims 45 to 60 under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 33 to 42, 45, 46, 54 to 61 and 63 are rejected under 35 U.S.C. §103(a) as being unpatentable over a proposed combination of U.S. Patent No. 5,902,105 (Uejima et al.) with the previously cited U.S. Patent No. 5,011,408 (Nakanishi). Remaining claims 43, 44, 47 to 53, 62, 64 and 65 are rejected under 35 U.S.C. §103(a) as being unpatentable over proposed combinations of Uejima et al. and Nakanishi with numerous U.S. Patents which are identified in the Office Action.

As a consequence, all of the formulated rejections of claims are primarily based on a proposed combination of Uejima et al. and Nakanishi. For reasons which follow, it is submitted that the subject matter recited in applicants' claims would not have been obvious to the person of ordinary skill in the art at the time the present invention was made based on the disclosures of Uejima et al. and Nakanishi.

As is correctly noted in the Office Action, Uejima et al. disclose a dental treatment apparatus having certain electrically conductive components for performing a root canal length measurement function. It is further correctly indicated

in the Office Action that "Uejima does not show forming the body as a unitary part" (noting, for example, the disclosure provided from line 54 of column 4 to line 6 of column 5). However, this ignores a further distinction between applicants' claims and the handpiece 11 of Uejima et al.

Claim 33 recites a dental handpiece "wherein the body is formed as a unitary, electrically insulating envelope including one part which serves as the handle and another part which constitutes the head" (emphasis added). Consequently, the recited body is not only a unitary part, but is a unitary part that forms an "electrically insulating envelope including one part which serves as the handle and another part which constitutes the head". Noting the following, this is to be distinguished from the shank module 13 which comprises the head unit 11B of Uejima et al.

As is best shown in Figures 2 and 3 of Uejima et al., the shank module 13 includes a housing 13c for containing a spring 37 and a bearing member 38 for receiving the intermediate rotation shaft 13b. At lines 64 to 67 of column 5 of Uejima et al., it is specifically indicated that:

all members relating to the insertion section 12c, the spring 37, the bearing member 38 and the housing 13c are made of metallic materials or other electrically conductive materials.
(emphasis added)

At lines 7 to 12 of column 6, it is further indicated that:

the terminal 18e of the root canal length measurement module 18 is made electrically conductive to the cutting tool 15 installed in the head 14 via electrically conductive materials in the handpiece 11 [so that] no external wiring is necessary for the cutting tool 15. (emphasis added)

Consequently, to provide a handpiece having no external wiring and which is capable of performing a root canal length measurement function using the handpiece, the housing 13c of the handpiece 11 of Uejima et al. is made electrically conductive.

Moreover, noting lines 24 to 26 of column 6 of Uejima et al., the electrically conductive "surface of the housing 13c of the shank module 13 is provided with an insulating film", and this is required so that:

even if the handpiece 11 makes contact with the tissues in the mouth or the like of the patient during root canal length measurement, the measurement circuit is not affected adversely and it is possible to continue measurement without problems. (col. 6, lines 40 to 44; emphasis added)

Consequently, for the handpiece disclosed by Uejima et al. to work properly, the housing 13c must be made of an electrically conductive material, and the electrically conductive material must additionally be provided with an insulating film.

This is to be distinguished from the dental handpiece recited in applicants' claim 33, which not only has a unitary body, distinguishing the separate modules forming the handpiece of Uejima et al., but which also has a unitary body forming an electrically insulating envelope including portions constituting the handle and portions constituting the head, distinguishing the required, electrically conductive housing 13c of the handpiece 11 of Uejima et al.

The Office Action of November 28, 2007, proposes a modification of the handpiece of Uejima et al. to include the unitary body which is disclosed by Nakanishi. However, in view of the foregoing, it is submitted that the handpiece disclosed by Nakanishi is not properly combined with the handpiece of Uejima et al., and that even if such a combination is deemed to be proper, the person of ordinary skill in the art at the time the present invention was made would not have known to produce the dental handpiece recited in applicants' claims from a combination of the disclosures of Uejima et al. and Nakanishi.

Firstly, it is to be noted that the disclosure of Nakanishi does not in any way relate to a handpiece which is to be used for performing a root canal length measurement function, and which must, by necessity, include suitable electrically conductive components. Other than a disclosure of materials suitable for forming the elastic engagement member 18a, at lines 10 to 12 of column 3, Nakanishi fails to specify any materials for forming the various components of the disclosed handpiece.

Consequently, Nakanishi's disclosure would not have provided the person of ordinary skill in the art at the time the present invention was made with any indication of what materials should be used to form the various components disclosed, or that any of the disclosed components should be formed of electrically conductive materials, either for purposes of performing a root canal length measurement function, or otherwise. Accordingly, it is submitted that the person of ordinary skill in the art at the time the present invention was made would not have combined the disclosure of Nakanishi with the disclosure of Uejima et al., as is proposed in the Office Action of November 28, 2007.

Secondly, even if the person of ordinary skill in the art at the time the present invention was made would have had reason to consider a combination of the disclosure of Nakanishi with the disclosure of Uejima et al., as is proposed in the Office Action of November 28, 2007, such a combination would have been rejected because a substitution of the unitary head housing 12 and head housing jacket 13 of Nakanishi for the shank module 13 and the head 14 of Uejima et al. would not produce the separate, connectable and disconnectable structures which are described, for example, from line 54 of column 4 to line 6 of column 5 of Uejima et al., and which are required for proper operation of the handpiece 11 of Uejima et al.

Moreover, and as previously indicated, for the handpiece 11 of Uejima et al. to perform a root canal length measurement function, the housing 13c of the handpiece 11 of

Uejima et al. is made electrically conductive. However, noting lines 26 to 29 of column 6 of Uejima et al.:

The housing 14e of the head 14 can be made of an insulating material such as a synthetic resin, since the housing is not included in any part of the above-mentioned conduction circuit. (emphasis added)

Consequently, the housing 13c of the handpiece 11 of Uejima et al., which is part of the conduction circuit for performing the disclosed root canal length measurement function, is made electrically conductive, while the housing 14e of the handpiece 11, which is not part of the conduction circuit for performing the disclosed root canal length measurement function, is made of an insulating material. This would have been entirely inconsistent with a use of the unitary head housing 12 and head housing jacket 13 disclosed by Nakanishi, because Uejima et al. disclose a handpiece 11 formed of separate, connectable and disconnectable structures, and because the separate structures of the handpiece 11 disclosed by Uejima et al. are provided for performing the disclosed root canal length measurement function.

In view of the foregoing, it is submitted that the person of ordinary skill in the art would not have considered combining the disclosures of Uejima et al. and Nakanishi, but would have instead rejected such a combination as inoperable, and would not have considered modification of the handpiece of Uejima et al. to include the unitary head housing 12 and head

housing jacket 13 disclosed by Nakanishi, as is proposed in the Office Action of November 28, 2007, because of structural inconsistencies between the disclosed handpieces.

Accordingly, it is submitted that applicants' claims are not properly subject to rejection under 35 U.S.C. §103(a) as being unpatentable over the combination of Uejima et al. and Nakanishi which is proposed in the Office Action of November 28, 2007, either alone or in further combination with the additional patents cited for purposes of rejecting dependent claims 43, 44, 47 to 53, 62, 64 and 65.

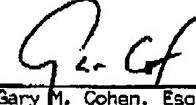
In view of the foregoing, it is submitted that this patent application is in condition for allowance and corresponding action is earnestly solicited.

Respectfully submitted,



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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office (Fax No. 571-273-8300) on: May 19, 2008.

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belt

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belt[1,noun]
belt[2,verb]
belt[3,noun]
asteroid belt
belt-tightening
belt up
Bible Belt
black belt[1,noun]
black belt[2,noun]
borscht belt

Main Entry: **belt**

Function: *verb*

Date: 14th century

transitive verb

- 1 a : to encircle or fasten with a belt b : to strap on
 - 2 a : to beat with or as if with a belt : **THRASH** b : **STRIKE, HIT**
 - 3 : to mark with a band
 - 4 : to sing in a forceful manner or style *<belting out popular songs>*
 - 5 : to drink quickly *<belted down a shot of whisky>*
- intransitive verb*

- 1 : to move or act in a speedy, vigorous, or violent manner
- 2 : to sing loudly

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belt  (bĕlt)*n.*

1.
 - a. A flexible band, as of leather or cloth, worn around the waist to support clothing, secure tools or weapons, or serve as decoration.
 - b. Something that resembles this type of band: *a belt of trees*.
2. An encircling route.
3. A seat belt or safety belt.
4. A continuous band or chain for transferring motion or power or conveying materials from one wheel or shaft to another.
5. A band of tough reinforcing material beneath the tread of a tire.
6. A geographic region that is distinctive in a specific respect: *"This is America's rural poverty belt"* Charles Kuralt.
7. *Slang* A powerful blow; a wallop.
8. *Slang* A strong emotional reaction.
9. *Slang* A drink of hard liquor.

tr.v. belt-ed, belt-ing, belts

1. To encircle; gird.
2. To support or attach with or as if with a belt: *belt one's trousers*; *belted the sword to her waist*.
3. To mark with or as if with an encircling band.
4. To beat with a belt or strap.
5. *Slang* To strike forcefully; hit.
6. *Slang* To sing in a loud and forceful manner: *belt out a song*.
7. *Slang* To swig (an alcoholic beverage).

*Idioms:**below the belt*

Not according to the rules; unfairly.

tighten (one's) belt

To begin to exercise thrift and frugality.

*under (one's) belt*In one's possession or experience: *"By his mid-teens, Liszt had three years of intensive concertizing under his belt"* *Musical Heritage Review*.[Middle English, from Old English, ultimately from Latin *balteus*.]

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